

WHAT IS CLAIMED IS:

1                    A voice and data communication system comprising a customer  
2 premises equipment (CPE) element and a line card for transferring communication  
3 signals between a subscriber and a network, said line card comprising:

4                    an analog front end for coupling said line card to said CPE through a  
5 transmission medium;

6                    a digitizer for digitizing received voice signals;

7                    a packetizer for packetizing said digitized voice signals;

8                    a modem for transmitting voice and data packets to said CPE; and

9                    a system interface for coupling said line card to at least one network;

10                  wherein said line card digitizes and packetizes said voice signals upon  
11 failure of said CPE.

1                    2.         A system as defined in claim 1, wherein said CPE comprises:

2                    a digitizer for digitizing received voice signals;

3                    a packetizer for packetizing said digitized voice signals;

4                    a modem for transmitting voice packets; and

5                    a switch for bypassing said packetizing system to a Plain Old Telephone  
6 System (POTS) terminal.

1                    3.         A system as defined in claim 2, wherein said switch is a relay for  
2 switching between said packetizer and said POTS system.

1                    4.         A system as defined in claim 3, wherein the position of said switch  
2 is determined by a signal, said signal indicating the status of the connection between said  
3 CPE and said line card.

1                    5.         A system as defined in claim 1, wherein said modem is a Digital  
2 Subscriber Line (DSL) modem.

1                 6.       A system as defined in claim 2, wherein said line card packetizes  
2        said voice signals upon failure of said CPE to do so, and wherein digitizing and  
3        packetizing equipment of said CPE is bypassed.

1                 7.       A system as defined in claim 2, wherein said failure is a power  
2        failure at said subscriber's location.

1                 8.       A system as defined in claim 2, wherein said failure is inability to  
2        synchronize a DSL modem on said CPE with a DSL modem on said line card.

1                 9.       A system as defined in claim 2, wherein said digitizers provide  
2        high quality audio encoding.

1                 10.      A system as defined in claim 2, wherein said packetizers provide  
2        high quality audio encoding.

1                 11.      A system for providing a voice signal for transmission comprising  
2        a line card for receiving said voice signal from a telephone, said line card including:

3                 an analog front end for coupling said line card to said telephone;

4                 a digitizer for digitizing received voice signals;

5                 a packetizer for packetizing said digitized voice signals;

6                 a modem for receiving voice packets from a CPE and transmitting said  
7        voice packets to a data network;

8                 a system interface for coupling said line card to a voice network and said  
9        data network; and

10                 a controller for controlling the destination of said voice signal;

11                 wherein said system can provide said voice signals to said voice network  
12        and said data network.

1                 12.      A system as defined in claim 11, wherein said line card is operative  
2        to receive a data signal on the same loop as said voice signal, said analog front end

*A Cont.*

3 separates said data signal from said voice signal, and said modem transmits said data  
4 signal to said data network.

1           13. A system as defined in claim 11, wherein said modem is a DSL  
2           modem.

*Add A1* >